MARKOV, Grigoriy Timofeyevich. Prinimali uchastiye: TERESHIN, O.N., dotsent; VASIL'YEV, Ye.N., dotsent; DUPLENKOV, D.A., aspirant; SAZONOV, D.M., aspirant; NOSOV, O.N., inzh. PISTOL'KORS, A.A., retsenzent; DOLUKHANOV, M.P., prof., retsenzent; KOCHERZHEVSKIY, G.N., dotsent, red.; VORONIN, K.P., tekhn.red.

[Antennas] Antenny. Moskva, Gos.energ.izd-vo, 1960. 534 p. (MIRA 14:4)

1. Chlen-korrespondent AN SSSR (for Pistol'kors).
(Radio--Antennas)

9.1923

86793

S/142/60/000/003/008/017
E192/E482

AUTHORS: Tereshin, O.N. and Belov, A.S.

TITLE: Decoupling of Slot-Type Antennas by Means of an Impedance Structure Situated in the Plane of the Slots

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, No.3, pp.359-365

TEXT: In practice, it is often necessary to secure a sufficient decoupling between the receiving and the transmitting antennas of the slot-type which are situated in the same plane in the vicinity of each other. It is necessary for the decoupling device to be situated in the plane of the antennas. A method of producing the decoupling by means of a plane impedance structure (surface) situated between the antennas is analysed. A uniform infinite (in the direction of x) impedance surface situated in the plane XOY is considered. The antennas are assumed to be uniform in the direction of x. If the distance between the thresholds of the individual grooves of the impedance structure are much smaller than the wavelength it can be assumed that

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Decoupling of Slot-Type Antennas by Means of an Impedance Structure Situated in the Plane of the Slots

$$\left.\frac{E_x}{H_y}\right|_{z=0} = 0 \qquad (1)$$

The characteristic surface impedance is given by

$$Z(y) = \left.\frac{E_y}{H_x}\right|_{z=0} \qquad (2)$$

This can also be expressed by (Ref.1):

$$Z(y) = \frac{i}{\omega\varepsilon} \frac{\int_{-\infty}^{\infty} \frac{\varkappa\xi(\varkappa) - F_1^2(\varkappa) - F_2^2(\varkappa)}{\varkappa} e^{-i\varkappa y}\, d\varkappa}{\int_{-\infty}^{\infty} \frac{\varkappa\xi(\varkappa) - F_1^2(\varkappa) + F_2^2(\varkappa)}{\varkappa\gamma} e^{-i\varkappa y}\, d\varkappa} \qquad (3)$$

Eq. (3)

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Decoupling of Slot-Type Antennas by Means of an Impedance Structure Situated in the Plane of the Slots

where $Z(y)$ is the surface impedance, ω is the angular frequency, ε is the permittivity of the medium above the impedance surface, k is the wave number in the space above the impedance surface, $\mathfrak{F}(\varkappa)$ is the directional pattern function of the system and $\gamma = \sqrt{\varkappa^2 - k^2}$. The functions $F^{\mathfrak{I}}$ of Eq.(3) represent the spectral densities and are defined by Eq.(4), where the symbols J represent the components of the volume density of electric and magnetic currents, z' and y' are the coordinates of the primary sources, while z and y are the coordinates of the observation point. At the points where the external currents are absent, the expression for the surface impedance can be written in a simplified form as given by Eq.(5). This expression can be normalized by introducing $\varkappa = \varkappa^{\varkappa}k$. In this case the normalized impedance is expressed by Eq.(6). From Eq.(5) or (6) it is seen that the decoupling can be achieved by reducing the denominator in these equations. If the denominator is denoted by a function $\varphi(y)$, the function $\mathfrak{F}(\varkappa)$ can be expressed by Eq.(10). Now the

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Decoupling of Slot-Type Antennas by Means of an Impedance Structure Situated in the Plane of the Slots

final expression for the surface impedance is

Eq. (11)

$$Z(y) = -\frac{1}{2}\,\frac{\int_{-\infty}^{\infty} \varphi(t)\,\frac{H_1^{(1)}(t-y)}{t-y}\,dt}{\varphi(y)} \qquad (11)$$

This formula gives the necessary impedance distribution for securing the desired field attenuation function $\varphi(y)$. It is assumed that $\varphi(y)$ is in the form of Eq.(14) where $f(y)$ is an analytic function free from singularities in the upper semi-plane. By contour integration of Eq.(11), it is found that the surface impedance is given by Eq.(15). From this it is seen that the greater the attenuation of the field the greater the decrease in the impedance. It is desirable that the surface impedance should

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be purely reactive since this can be simply achieved by means of a simple periodic (corrugated) structure. The theory was verified by some experiments where the following parameters were chosen for Eq.(15): f(y) = const and a = 0. This corresponds to a purely resistive surface impedance which can be simply realized in practice. The experiments were done at the wavelength of 3.2 cm and the system consisted of a number of grooves filled with different dielectrics and absorption materials. The structure had a width of 2.5 mm and length of 250 mm. The index n was taken as being equal to 3 and up to 6 grooves were used. It was found that with 3 grooves, the attenuation was 33 db, with 6 grooves the attenuation increased to 44 db (calculated value being 80 db). If the above corrugated structure was replaced by a metal sheet the decoupling was about 20 db. There are 4 figures and 3 Soviet references.

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S/142/60/000/003/008/017
E192/E482

Decoupling of Slot-Type Antennas by Means of an Impedance Structure Situated in the Plane of the Slots

ASSOCIATION: Kafedra antennykh ustroystv Moskovskogo ordena Lenina energeticheskogo instituta (Department of Antenna Devices of Moscow "Order-of-Lenin" Power Engineering Institute)

SUBMITTED: June 1, 1959 (initially)
July 20, 1959 (after revision)

Card 6/6

2044
S/109/60/005/012/012/035
E192/E382

9.1800 (2301, 3402, 2603)

AUTHOR: Tereshin, O.N.

TITLE: Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol. 5, No. 12, pp. 1944 - 1950

TEXT: The devices for suppressing the interaction between a receiving antenna and a transmitting antenna are of considerable importance. The case of effecting the reduction in this interaction by means of flat purely reactive surfaces with variable surface impedance was investigated in an earlier paper (Ref. 1). In the following, an attempt is made to investigate the possibility of constructing the attenuating or decoupling structures based on the surface with purely reactive surface impedance. As in the earlier paper, it is assumed that a grooved surface lies in the plane $z = 0$ (see the figure). The external electrical and magnetic currents in the volume V' above this surface are given and

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the parameters of the surface as well as the distribution of the external current in the volume V' are independent of the coordinate X. It is further assumed that the field of the external currents in free space is in the form of TM-waves relative to the axis Z. This limitation is not particularly important since the case of TE-waves can be treated in an analogous manner. In the case considered, the field of the external sources will have the electric-field components E_z and E_y and the magnetic field H_x. The grooved structure is therefore characterised by the boundary condition:

$$Z(y) = \left.\frac{E_y}{H_x}\right|_{z=0} \qquad (1)$$

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Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

where $Z(y)$ is the distribution function of the impedance along the axis Y . This formula is true in the case when the width of the grooves is less than the wavelength and the thickness of the ribs δ is much less than the width of the grooves d (see the figure). It is also assumed that at a certain distance from V' a slot antenna is situated in the region σ along the axis Y . It is now necessary to determine the optimum distribution function for the reactance along the axis Y in the plane $z = 0$ such that a maximum decoupling between the two antennae will be achieved. The tangential component of the total magnetic field in the vicinity of the grooved surface ($z \simeq 0$) is assumed to be in the form:

$$H_x = e^{Z^*(y,z)} \qquad (2)$$

where $Z^*(y,z)$ is a complex function of variables y and z.

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This function can be split into the real and imaginary parts, as given by:

$$Z^{*}(y,z) = Z_1(y,z) + iZ_2(y,z) \qquad (3)\ .$$

On the basis of Maxwell equations:

$$E_y = -\frac{i}{\omega\varepsilon}\frac{\partial H_x}{\partial z} \qquad (4)$$

where ε is the absolute permittivity of the medium . On the basis of Eq. (4), (2) and (1), it is found that:

$$\int_{0}^{z}\left|\frac{\partial \varrho}{\partial z}\frac{\partial \varphi}{\partial}+\frac{\partial \varrho}{\partial z}\frac{\partial \varphi}{\partial}\right| = \int_{0}^{z}\left|\frac{\partial \varrho}{\partial z}\frac{\partial \varphi}{\partial}\right| = (h)Z \qquad (5)$$

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Consequently, the condition of obtaining the purely reactive surface impedance can be written as

$$\left.\frac{\partial Z_2}{\partial z}\right|_{z=0} = 0 \qquad (6) .$$

On the basis of the above, the wave equation for the system can be written as:

$$\frac{\partial^2 Z_1}{\partial y^2} + \frac{\partial^2 Z_1}{\partial z^2} + \left(\frac{\partial Z_1}{\partial z}\right)^2 + \left(\frac{\partial Z_1}{\partial y}\right)^2 - \left(\frac{\partial Z_2}{\partial z}\right)^2 - \left(\frac{\partial Z_2}{\partial y}\right)^2 + k^2 = 0,$$

$$\frac{\partial^2 Z_2}{\partial y^2} + \frac{\partial^2 Z_2}{\partial z^2} + 2\frac{\partial Z_1}{\partial y}\frac{\partial Z_2}{\partial y} + 2\frac{\partial Z_1}{\partial z}\frac{\partial Z_1}{\partial z} = 0. \qquad (8) .$$

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Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure in the Plane of the Slots

Now, the components of the function $Z^{\mp}$ can be approximately expressed by the following expansion formulae:

$$Z_1(y, z) = Z_1^0(y) + Z_1'(y)\, z + Z_1^2(y)\, z^2,$$
$$Z_2(y, z) = Z_2^0(y) + Z_2'(y)\, z + Z_2^2(y)\, z^2. \qquad (9)$$

Since the surface impedance is purely reactive, i.e. $Z_2' = 0$, Eqs. (8) can be written in a different form and the final expressions are:

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Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

$$Z_1'(y) = \pm \sqrt{\left(\frac{dZ_2^0}{dy}\right)^2 - \frac{d^2Z_1^0}{dy^2} - 2Z_1^2 - \left(\frac{dZ_1^0}{dy}\right)^2 - k^2}, \qquad (14)$$

$$\frac{d^2Z_2^0}{dy^2} + 2Z_2^2 + 2\left(\frac{dZ_1^0}{dy}\right)\left(\frac{dZ_2^0}{dy}\right) = 0. \qquad (15)$$

In the first approximation, it can be assumed that in Eqs. (15) and (14):

$$z_1^2(y) = z_2^2(y) = 0 \qquad (17).$$

In order to determine whether the above solution can be extended for any z in the form of an expression corresponding to the radiation conditions for $z \to \infty$ and the singularities of the sources, it is possible to use the

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Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

expression for the tangential components of the magnetic field which was derived in an earlier paper (Ref. 2). This expression is:

$$H_x = \omega\varepsilon \int_{-\infty}^{\infty} \left\{ \frac{\xi(\varkappa) e^{-\gamma z}}{\gamma} + \left[\frac{F_2^0(\varkappa) e^{\gamma z} - F_1^0(\varkappa) e^{-\gamma z}}{\varkappa\gamma} \right] \right\} e^{-i\varkappa y} d\varkappa. \quad (21)$$

where γ is the directional pattern function for the grooved structure and $F^0_{1,2}$ are integrals depending on the volume density of the primary electric and magnetic currents. By investigating this expression, it is found that the tangential components of the magnetic field in the vicinity of the grooved structure lying outside the region of the primary sources can be represented as a spectrum of

Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

attenuated waves. From the above analysis, it is found that if the function describing the changes of the tangential component of the magnetic field H_x as a function of y is given, the phase function cannot be arbitrary and is determined from the reactance conditions $dZ_1^0/dy = Ce^{2Z_1^0(y)}$, where C is an arbitrary constant. The distribution of the reactance necessary to secure a given H_x can be determined from:

$$Z(y) = \frac{i}{\omega\varepsilon}\sqrt{Ce^{4Z_1^0} - \frac{d^2Z_1^0}{dy^2} - \left(\frac{dZ_1^0}{dy}\right)^2 - k^2}. \qquad (26)$$

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S/109/60/005/012/012/035
E192/E382

Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

Since the distribution function for the impedance of the grooved structure should be purely reactive, the function $Ce^{4Z_0}_{1}$ should be greater than the remaining terms under the root in Eq. (26). From this it follows that in order to achieve a high attenuation rate for the modulus H_x, it is necessary to have a high rate of change of the surface impedance. In practice, this rate of change cannot be made infinitely high since the width of the grooves and the thickness of the ribs cannot be infinitely small.
There are 1 figure and 2 Soviet references.

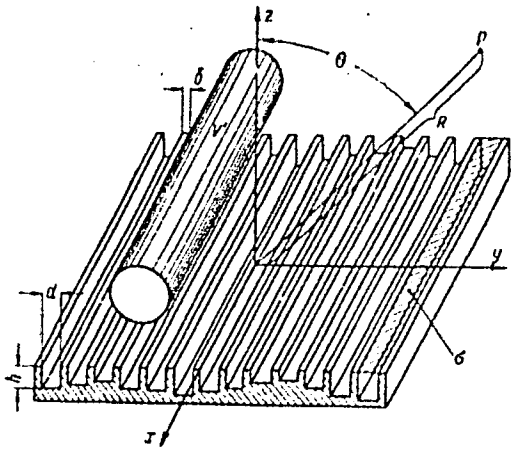
SUBMITTED: February 24, 1960

Card 10/11

S/109/60/005/012/012/035
E192/E382

Decoupling of Two Antennae of the Slot-type by Means of a Grooved Structure Situated in the Plane of the Slots

Figure:



Card 11/11

20575
S/109/61/006/002/007/023
E140/E435

9,1923 (also 2603)

AUTHORS: Tereshin, O.N. and Sokolov, A.Ye.

TITLE: The Suppression of Current Excited on a Metal Screen by a Diffraction Antenna of Finite Dimensions

PERIODICAL: Radiotekhnika i elektronika, 1961, Vol.6, No.2, pp.221-227

TEXT: In a previous work by one of the authors (O.N.Tereshin, Ref.1) it was shown that the degree of decoupling between two slot antennas of infinite length is defined by the maximally obtainable rate of variation of a purely reactive surface impedance. It was noted that for antennas of finite length the degree of decoupling is limited by the level of the current flowing around the decoupling structure constructed according to the previous analysis (Ref.2). The present work presents theoretical and experimental results of the study of the decoupling system for finite-dimension antennas with circular output apertures. The effects of the decoupling devices on the directional pattern of plot antennas are also considered. In the analysis it is assumed that the width of the channels in the decoupling structure are much smaller than the wavelength and the thicknesses of the ribs are much smaller than

the channel width (Fig.1). It is further assumed that the primary radiators given in the region S (Fig.1) give rise to a TM-wave in free space. It is first shown that for a given law of variation of the tangential magnetic field component about the surface z = 0 the distribution of the purely reactive surface impedance of the symmetrical finite-dimension antenna and the two-dimensional case previously considered differ only in the immediate vicinity of the antenna. The experimental results indicate that the theory is valid for small attenuations but, due to the finite dimensions of the decoupling structure, at high attenuations it is not possible to realize the calculated value of attenuations. Certain modifications of the basic method are suggested for improving this result. In particular this consists in a periodic reproduction of the decoupling structure permitting substantially better results (27 dB vs 9 dB) to be obtained than in previously published work. The directional patterns of dipoles with length 6λ, 3λ and 0.63λ, with and without the decoupling structures, show the effectiveness of the latter over a band of approximately 20% in frequency. There are 8 figures, 2 tables and 4 references:
3 Soviet and 1 non-Soviet.
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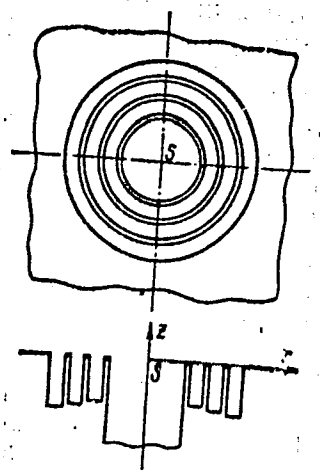
20575

The Suppression of Current ...

S/109/61/006/002/007/023
E140/E435

SUBMITTED: June 11, 1960

Fig.1.



Card 3/3

30

L 12957-63 EWT(1)/BDS/FCS(k)/EEC-2/EED-2
APGC/ASD/ESD-3 Pi-4/Pj-4/Pl-4 WR S/109/63/008/004/025/030

AUTHOR: Tereshin, O. N.

TITLE: Inverse electrodynamic problem in determining an impedance-type antenna with a special profile

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 4, 1963, 715-718

TEXT: Discussing his earlier work on the subject, the author explains that in the synthesis of a flat impedance-type antenna to conform to an assigned directional diagram, the principal difficulty lies in determining the conditions of pure reactance. And yet, he says, the latter is very important, since the case of a flat antenna with a pure reactive surface impedance is precisely the one which presents the greatest practical interest. The author then explains some of the limitations as to the kind of directional diagrams which can be obtained with a flat impedance-type antenna by present methods, and proposes that a new parameter—that of the relief of the impedance surface—be included in the computation. This would greatly broaden the area of applicability of the whole process. After explaining that the relief of this impedance surface is determined by the intersection of [illegible] const. and the function of z = [illegible], he proceeds to solve the subsequent mathematical formulations. [illegible] impedance-type antennas.

ACCESSION NR: AP4043667 S/0109/64/009/008/1338/1344

AUTHOR: Tereshin, O. N.

TITLE: Determining the profile of a relief impedance antenna

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1338-1344 - Ag '64.

TOPIC TAGS: antenna, relief antenna, impedance antenna

ABSTRACT: The solution of a differential equation for the function of the profile of a relief impedance antenna is analyzed. The profile and law of impedance distribution are found for the case of a slightly reflecting impedance step introduced at the end of a surface-wave structure. The solution permits synthesizing the relief impedance segments which constitute the transition between segments having different electromagnetic-field structures. A structure constituting the transition from a surface-wave segment to a zero-electromagnetic-wave segment, calculated in the article, is a particular case of the transition segment.

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ACCESSION NR: AP4043667

The problem may be of use in designing TW antennas with a higher coefficient of the utilization of surface. Orig. art. has: 2 figures and 29 formulas.

ASSOCIATION: none

SUBMITTED: 17Jun63 ENCL: 00

SUB CODE: EC NO REF SOV: 002 OTHER: 000

Card 2/2

ACC NR: AP6036367 SOURCE CODE: UR/0109/66/011/011/1944/1952

AUTHOR: Tereshin, O. N.; Gurov, A. Ye.; Antipenkov, I. I.

ORG: none

TITLE: Antenna with a limited excitation region

SOURCE: Radiotekhnika i elektronika, v. 11, no. 11, 1966, 1944-1952

TOPIC TAGS: antenna, slot antenna

ABSTRACT: The problem is considered of obtaining a radiating surface based on a slotted periodic structure with a given radiation pattern and a given controlled (limited) excitation region. A connection is established between the coefficients of asymptotic expansion for which an antenna field, produced by a system of radiation sources, is absent in the far zone. This permits solution of the antenna synthesis problem for the case in which separate conditions are imposed on both the near field and the radiation pattern. Two co-phase and two antiphase radiation sources are considered in particular. Expressions are derived for the impedance function which depends on distribution of the primary sources, radiation pattern, and a law governing the current droop. The radiation characteristics of such a system were calculated and experimentally investigated. Theoretical and experimental results are in good agreement. Orig. art. has: 6 figures and 33 formulas.

SUB CODE: 09/ SUBM DATE: 01Jun65/ ORIG REF: 006/ ATD PRESS: 5106

Card 1/1

37263
S/057/62/032/005/010/022
B163/B102

26.2212

AUTHORS: Kalmykov, A. A., Tereshin, V. I., Trubchaninov, S. A., and Safronov, B. G.

TITLE: Interaction of plasma clusters with a spatially periodic magnetic field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 5, 1962, 579-583

TEXT: The parametric resonance of the ions in a plasma cluster moving along the axis of an axially symmetric magnetic field whose strength is a periodic function of the axial coordinate is studied experimentally. If the cyclotron frequency is nearly equal to the product of axial velocity and spatial periodicity, an increase of the velocity components perpendicular to the axis is expected, on the basis of theoretical considerations. The plasma cluster moves inside a copper cylinder of 8 cm diameter and 120 cm length. The magnetic field is formed by one external long coil, giving a homogeneous field H, and 17 equidistant internal coils of alternating polarity, producing a superimposed

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sinusoidal modulating field h sinνz. H is varied from 0 to 2000 gauss, and h between 0 and 150 gauss. Proton bunches with concentrations of 10^9 to 10^{10} cm^{-3} are injected through a toroidal section with a magnetic field, and the dependence of the axial and perpendicular velocity components on H and h are determined by probe measurements. [Abstracter's note: The initial ion energy is not explicitly mentioned, but can be calculated from the data as 60 ev]. Maximum increase of perpendicular velocity and reduction of axial velocity, while the total particle energy was conserved, was attained when H = 570 gauss and h/H = 0.17. It is intended to use such periodic magnetic systems for the injection of plasma clusters into magnetic traps, especially into pulsed adiabatic traps for nuclear fusion experiments. Since the observed increase of the perpendicular velocity components is a resonance effect dependent on particle mass, it is thought that a method of cleaning unwanted impurity ions from plasma clusters might be based on this effect. There are 7 figures.

SUBMITTED: February 20, 1961

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X

TERESHIN, V. I., TRUBCHANINOV, S. A., NOZDRACHEV, M. G., NABOKA, V. A., SAFRONOV, B. G., KALMYKOV, A. A., TIMOFEYEV, A. D., PANKRAT'YEV, YU. I.,

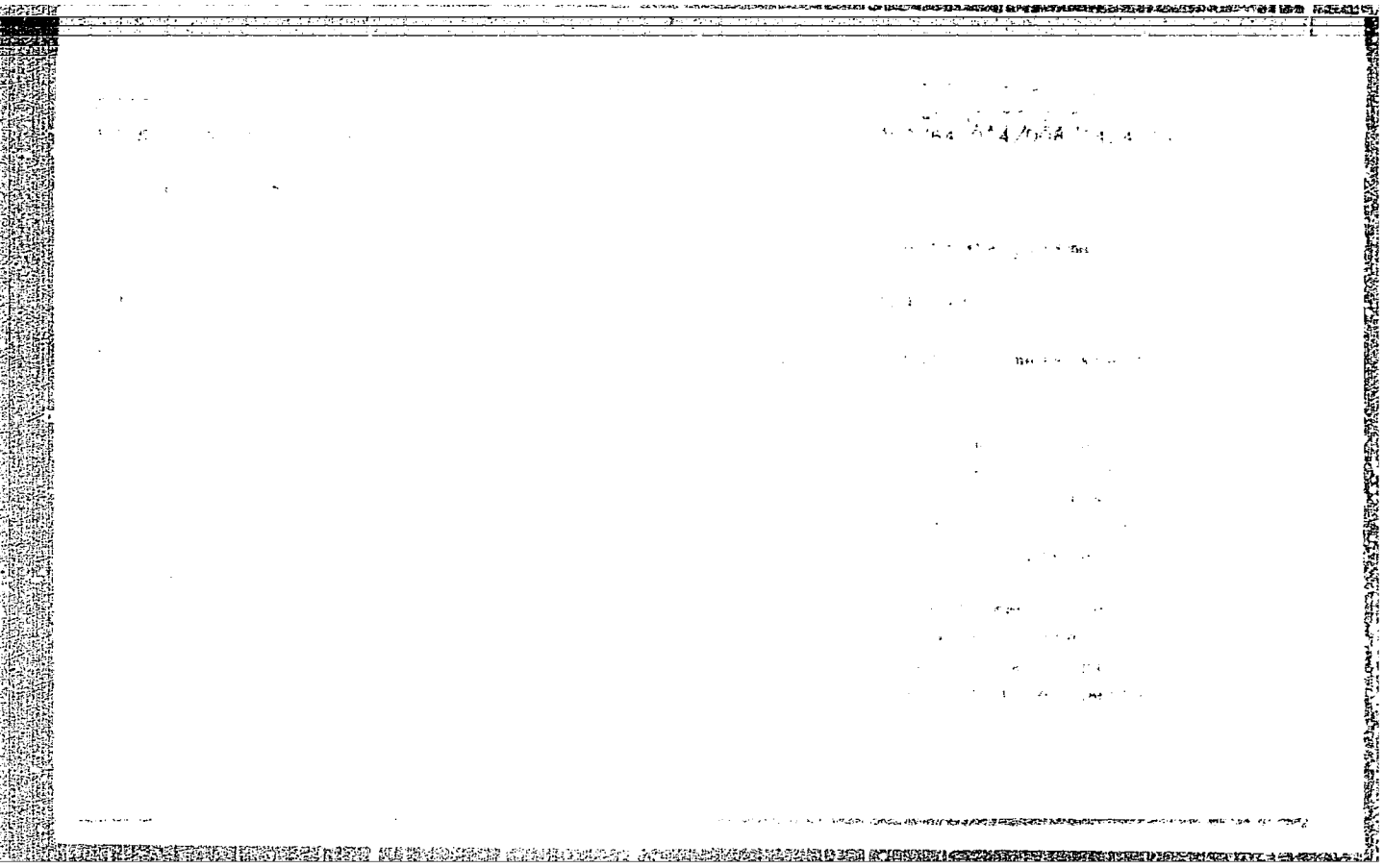
"Plasma Guns Investigation,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases, Paris, France, 8-13 Jul 63

KALMYKOV, A.A.; TIMOFEYEV, A.D.; PANKRAT'YEV, Yu.I.; TERESHIN, V.I.; VERESHCHAGIN, V.L.; ZLATOPOL'SKIY, L.A.

Method for measuring the energy and mass spectrum of the ion component of a moving plasma. Prib. i tekh. eksp. 8 no.5:142-145 S-O '63. (MIRA 16:12)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.



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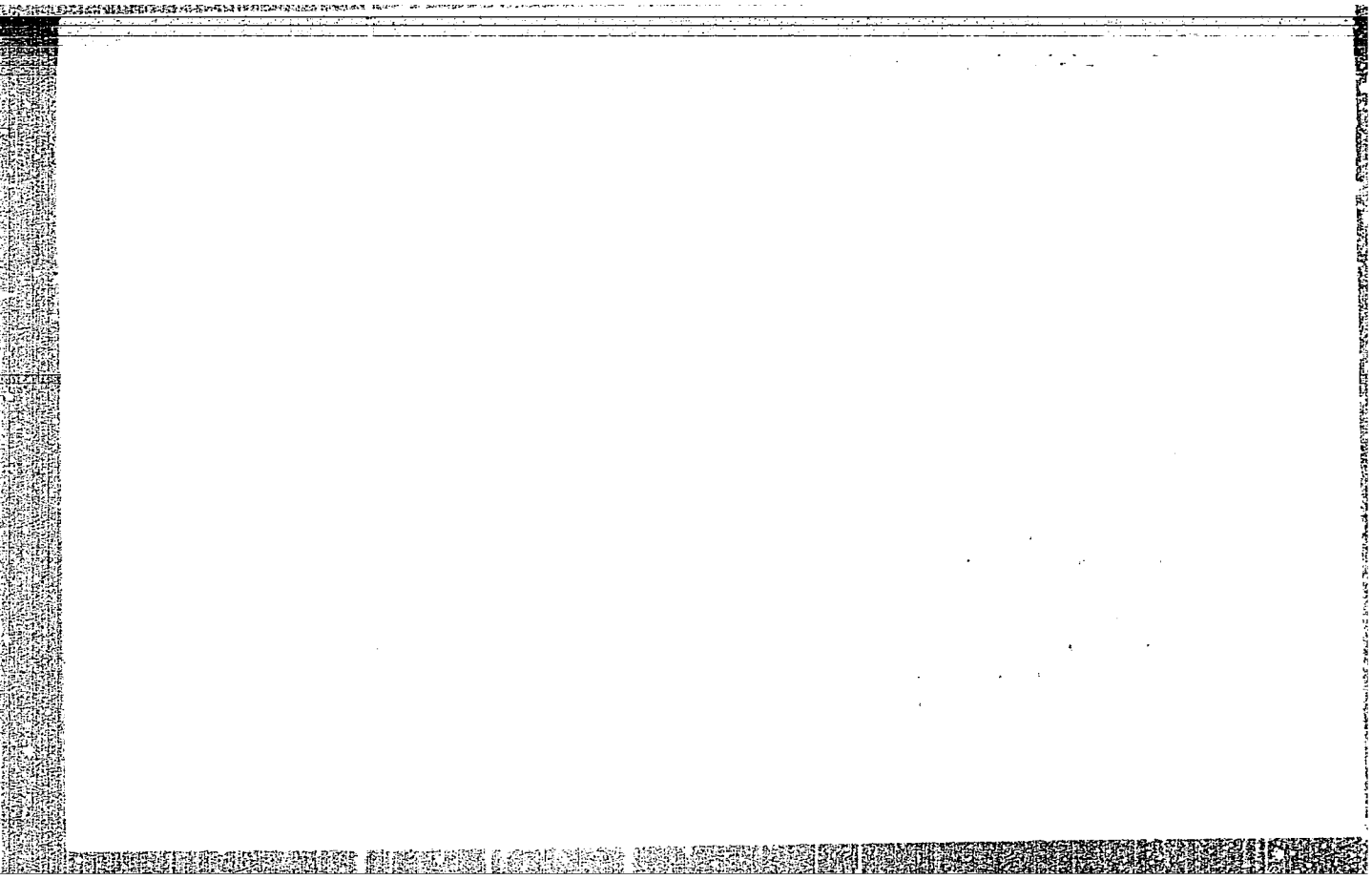
ASSOCIATION: none

SUBMITTED: 27Nov63 ENCL: 01



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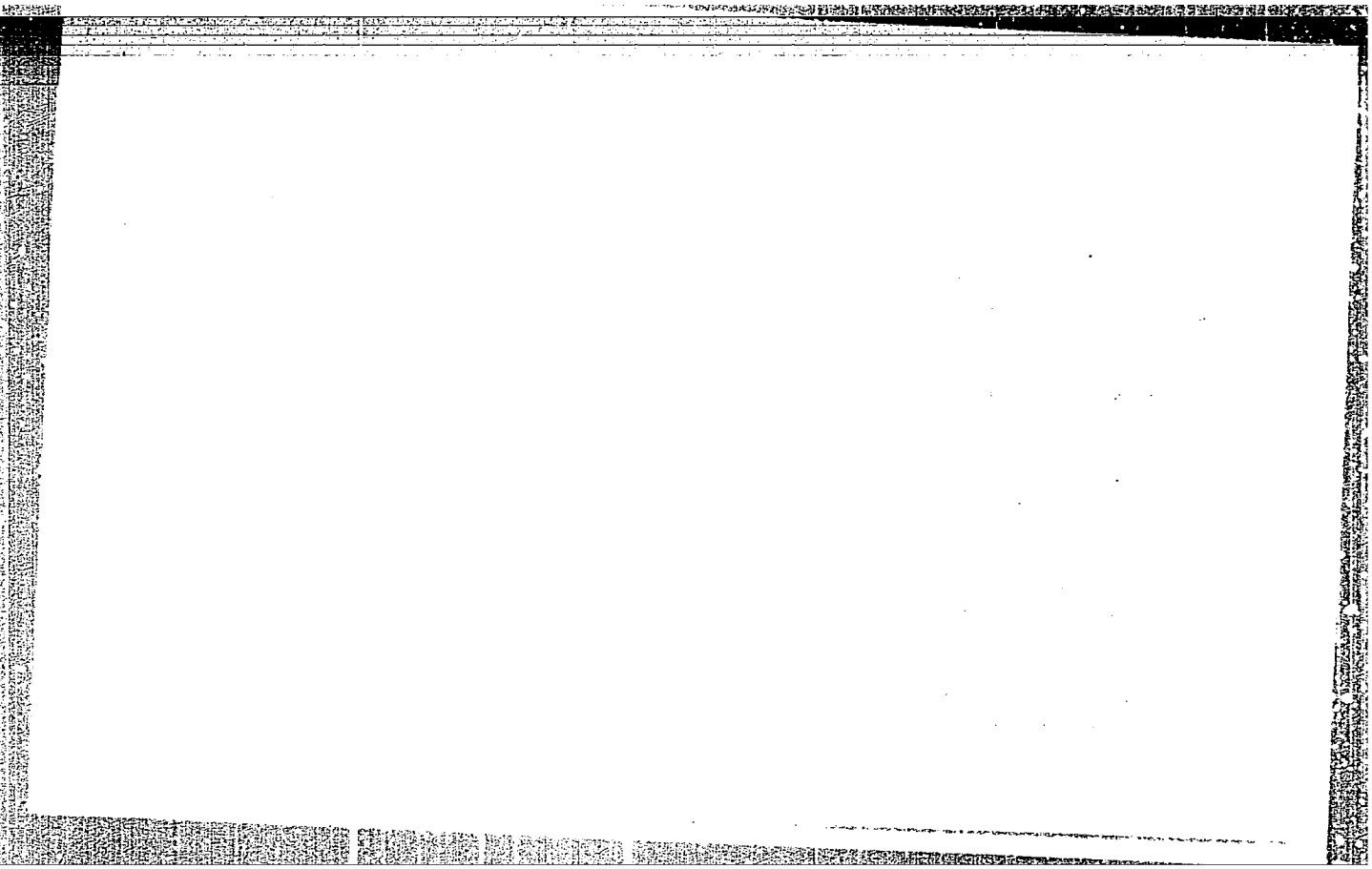

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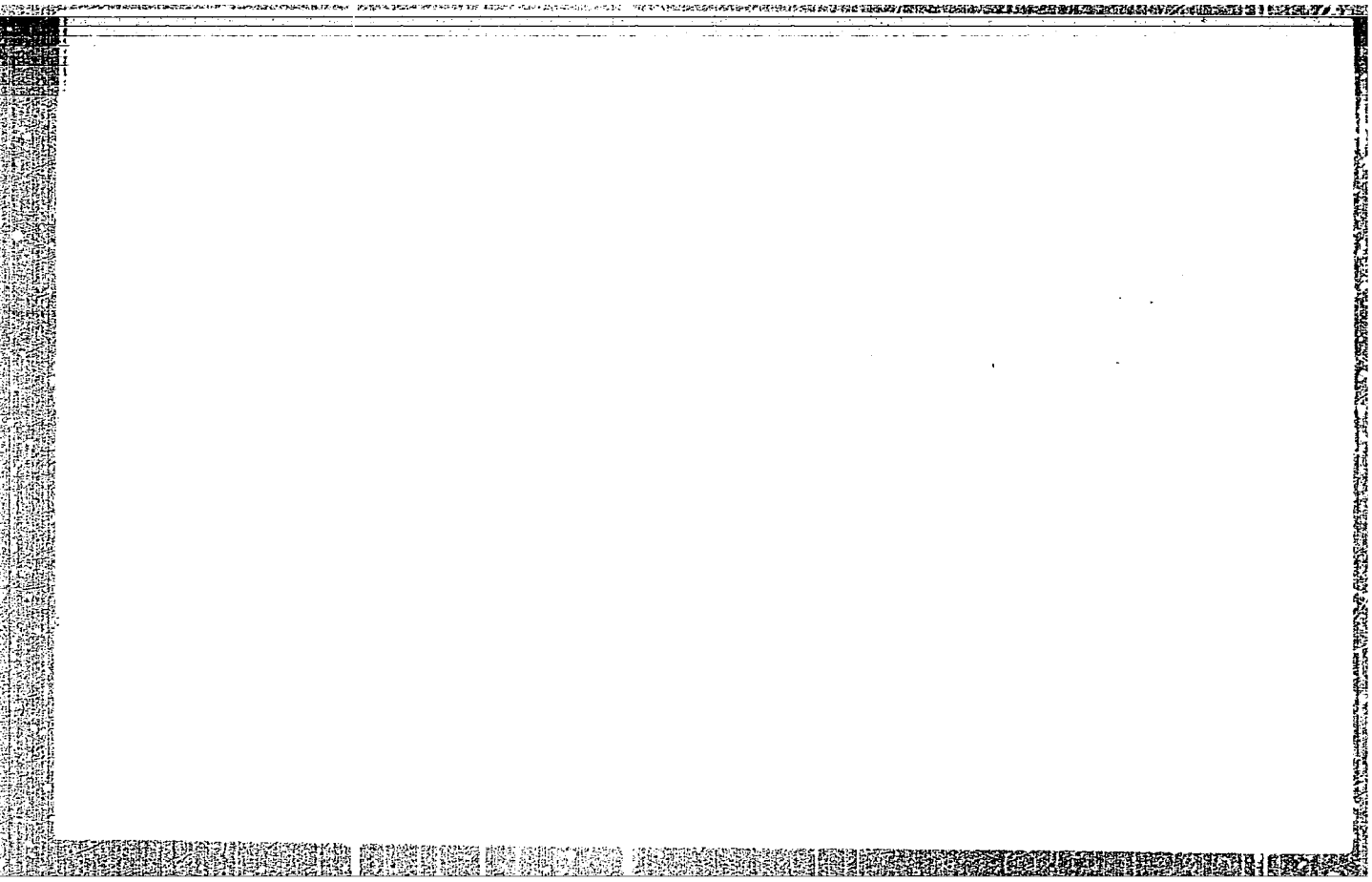

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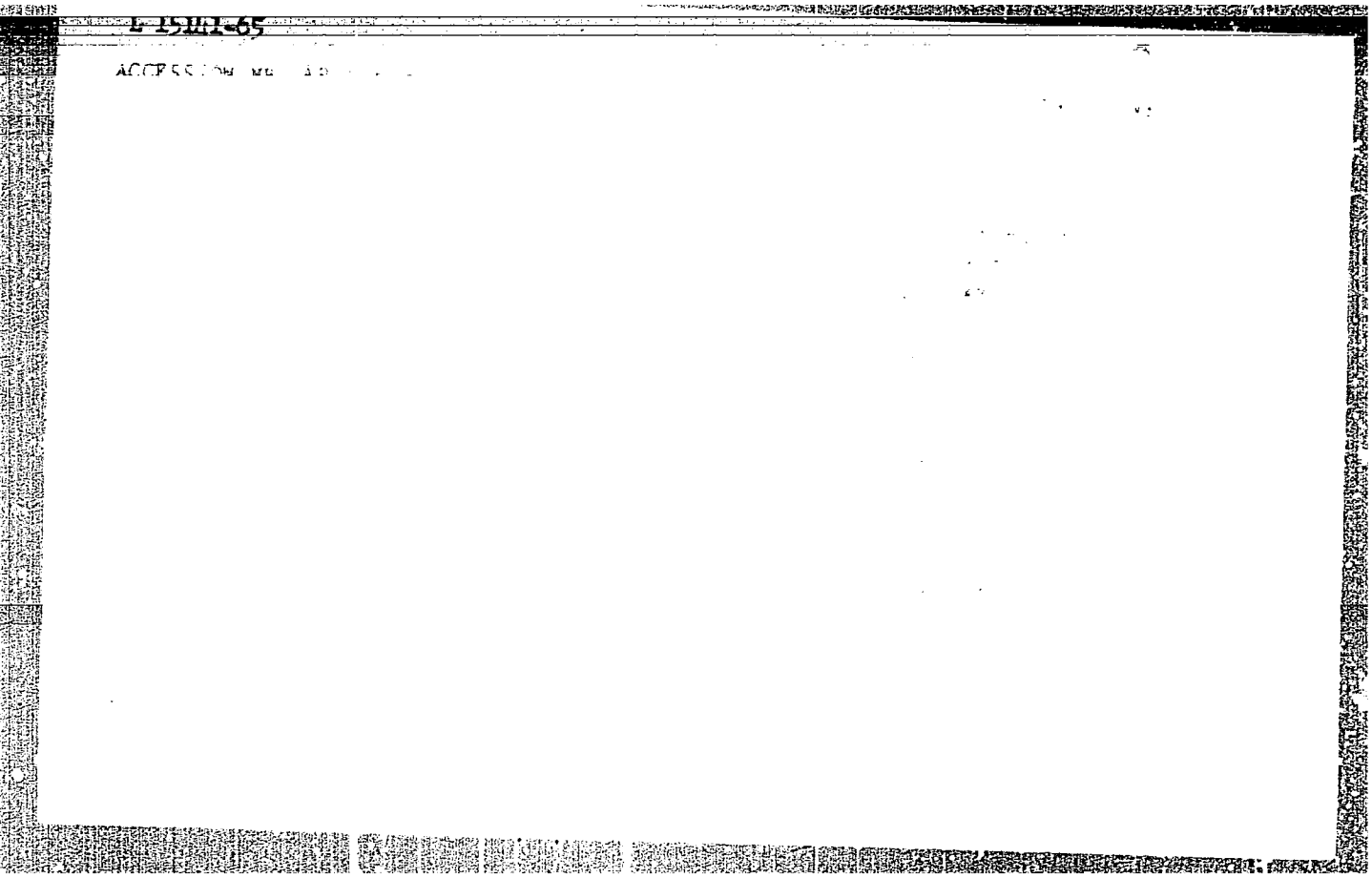

TERESHIN, V.S.

New safety engineering regulations. Put' i put.khoz.5 no.2:36-37 F '61. (MIRA 14:3)

1. Tekhnicheskiy inspektor TSentral'nogo Komiteta profsoyuza rabochikh zheleznodorozhnogo transporta.
(Railroads--Safety measures)

LOSHCHININ, A.V.; TERESHIN, V.S., tekhnicheskiy inspektor

Pay more attention to safety measures in the plans themselves. Transp. stroi. 11 no.8:31-33 Ag '61. (MIRA 14:9)

1. Zaveduyushchiy otdelom okhrany truda TSentral'nogo komiteta profsoyuza rabochikh zheleznodorozhnogo transporta (for Loshchinin).

(Building--Safety measures)

LAZAREV, D.F.; VOSMAN, Ya.P., inzh., retsenzent; TERESHIN, V.S., inzh., retsenzent; KARAMYSHEV, I.A., inzh., red.; OSENKO, L.A., tekhn. red.

[Principles of safety engineering and fire prevention in construction for the transportation industry] Osnovy tekhniki bezopasnosti i protivopozharnoi tekhniki na transportnom stroitel'stve. Moskva, Transzheldorizdat, 1963. 283 p. (MIRA 16:8)

(Civil engineering--Safety measures)

TERESHIN, V.S.

The duty of each designer. Transp.stroi. 13 no.10:60-63 O '63. (MIRA 17:8)

1. Tekhnicheskiy inspektor TSentral'nogo komiteta professional'nogo soyuza rabochikh zheleznodorozhnogo transporta.

TERESHIN, V.S., inzh.

Work safety on sections with electric traction. Put' i put. khoz. 8 no.11:37-39 '64 (MIRA 18:2)

1. Zamestitel' nachal'nika otdela Upravleniya truda, zarabotnoy platy i tekhniki bezopasnosti Ministerstva putey soobshcheniya.

TERESHIN, Vladimir Stepanovich; BAKANOV, Andrey Ivanovich; BEZUCHKO, V.S., inzh., red.

[Labor protection in track repair, maintenance and operation] Okhrana truda v putevom khoziaistve. Moskva, Transport, 1964. 263 p. (MIRA 17:6)

S/146/62/005/003/002/014
D234/D308

AUTHOR: Tereshin, V.V.

TITLE: Compensation of temperature error of valve photoelements with the aid of semiconductor thermoresistances

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 5, no. 3, 1962, 12-20

TEXT: The author describes a circuit consisting of a photocell of type ФЭСС-V (FESS-V), a measuring instrument and a semiconductor thermoresistance, connected in series. The basic equation of the idealized circuit and the condition of the ideal temperature compensation is deduced. Method of measuring the internal resistance of the photocell, its temperature coefficient and the temperature coefficient of the emf is discussed. One of the possible methods of design of the compensating device is described and results of its experimental verification given. Temperature error is influenced by changes of illumination intensity, maximum

Card 1/2

Compensation of temperature ... S/146/62/005/003/002/014
D234/D308

error between +15° and +24°C being ±3%. The process of compensation was found to be practically stable with respect to time. I.T. Sheftel' is mentioned for his contributions in the field. There are 3 figures.

ASSOCIATION: Altayskiy politekhnicheskiy institut (Altay Polytechnic Institute)

SUBMITTED: July 7, 1961

Card 2/2

TERESHIN, Yu.P.

Organization of conveying and storage at the machinery plants of the Lower Volga Economic Council. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.6:77-78 Je '64. (MIRA 17:11)

TERESHIN, Yu.A.

Water balance and the growth of Scotch pine in the young stands of Il'men' Preserve. Trudy Inst. biol. UFAN SSSR no. 43:45-52 '65 (MIRA 19:1)

Age-conditioned changes in the water balance of Scotch pine needles in the young stands of the Southern and Northern Urals. Ibid.:59-71

1. Institut biologii Ural'skogo filiala AN SSSR.

YEVTYANOV, S.I.; KAPRANOV, M.V.; TERESHINA, G.N.

Band oscillator with increased frequency stability. Nauch.dokl.vys. shkoly; radiotekh. i elektron. no.2:89-98 '58. (MIRA 12:1)

1. Kafedra radioperedayushchikh ustroystv Moskovskogo energeticheskogo instituta.

(Oscillators, Electric)

ACC NR: AT6022355 SOURCE CODE: UR/0000/66/000/000/0017/0026

AUTHOR: Tereshina, G. N.

ORG: none

TITLE: Harmonic analysis of varicap voltage

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya poluprovodnikovykh priborov. Doklady. Moscow, 1966, 17-26

TOPIC TAGS: harmonic analysis, variable capacitor, varicap voltage

ABSTRACT: An approximate method for finding the voltage across varicaps is described; the method does not require the imposition of stringent limitations on operating conditions and on the form of functional characteristics of the p-n junction as a nonlinear capacitor. If the volt-coulomb characteristic of the varicap are known then, for a sinusoidal charge of the varicap, the voltage across it can be found. The dc component, the first and second harmonics of the voltage across the varicap are found with an approximate method in which 5 reference points on the volt-coulomb characteristics are found for the second harmonic, however, the linearity is accompanied with significant conducting losses of the p-n junction. The best compromise between linearity and losses is obtained for operation in the 1.5th harmonic of the input frequency. Orig. art. has: 6 formulas and 4 figures.

SUB CODE: 09/ SUBM DATE: 05Apr66/ ORIG REF: 008/ OTH REF: 005

Card 1/1

L 02400-67

ACC NR: AT6022335 SOURCE CODE: UR/0000/66/000/000/0007/0013

55
B+1

AUTHOR: Tereshina, G. N.

TITLE: Problems in the use of a voltage-variable capacitor as the amplitude modulator in a radio transmitter

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya radioperedayushchikh ustroystv. Doklady. Moscow, 1966, 7-13

TOPIC TAGS: electronically variable capaciton, amplitude modulation, radio transmitter, transistorized circuit

ABSTRACT: It is shown that problems of efficiency in the output stages of transistorized radio transmitters may be solved by using an extremely simple amplitude modulator with a single voltage-variable capacitor if proper attention is given to the characteristics of circuit alignment. Experimental results show that there are no serious obstacles to linear modulation characteristics. It is shown that the integral efficiency of the collector circuit increases somewhat during modulation as compared with pure carrier transmission. Oscillographic analysis shows little distortion in the modulated signal. It is experimentally established that the depth of modulation of the rf signal and the efficiency are not changed when the accoustic oscillator is tuned from 50 to 20,000 cps at an internal resistance of

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ACC NR: AT6022335 O

600 Ω. No changes were observed in the shape of the modulation envelope. A comparison of the power characteristics of the experimental amplitude modulator with the theoretical values shows satisfactory agreement which indicates that modulation is close to linear. Proper selection of the capacitance in the collector circuit and the use of a submodulation stage in the preamplifier gives high efficiency for both carrier transmission and modulation. A schematic of the experimental installation is given and briefly described. Orig. art. has: 2 figures, 1 table, 3 formulas.

SUB CODE: 09/ SUBM DATE: 31Mar66/ ORIG. REF: 006/ OTH. REF: 002

FEDOT'YEV, K.M.; TERESHINA, I.A.

Some outside factors of the migration of molybdenum. Trudy IGEM no.99:39-54 '63. (MIRA 16:9)

(Molybdenum)

USSR/Human and Animal Physiology (Normal and Pathological). T-8
The Liver.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 50943

Author : Tereshina, L.F.

Inst : Riga Institute of Medicine.

Title : Interoceptive Influences of the Gall Bladder upon the Level of Blood Pressure.

Orig Pub : Sb. nauchn. rabot Rizhsk. med. in-t, 1957, 7, 29-37.

Abstract : Under urethane narcosis the gall bladder (GB) of cats was inflated by a rubber ball, and at the same time their blood pressure (BP) was recorded. The irritations of mechanoreceptors and baroreceptors resulted in an increase of medial arterial BP and in a decrease of BP amplitude, as well as in an increase of respiratory rate and amplitude. If prior to the inflation of the gall bladder the

Card 1/2

USSR/Human and Animal Physiology (Normal and Pathological). T-8
The Liver.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 50943

sensory nerve was stimulated or a carotidal pressor reflex was induced, the increase of BP was greatly intensified. In turn, the carodital pressor reflex was intensified after the gall bladder was distended. -- A.I. Acharkan.

Card 2/2

L 22254-66 EWT(l)/EWT(m)/EWP(t) IJP(c) GG/JD

ACC NR: AP6010974 SOURCE CODE: UR/0056/66/050/003/0546/0550

AUTHOR: Lazarev, B. G.; Lazareva, L. S.; Makarov, V. M.; Tereshina, N. S. 59 B

ORG: Physicotechnical Institute, Academy of Sciences, Ukrainian SSR (Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR)

TITLE: Effect of impurities on the variation of the superconducting transition temperature of thallium with pressure 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 3, 1966, 546-550

TOPIC TAGS: superconductivity, superconductor, critical temperature, transition temperature, thallium, indium, temperature dependence

ABSTRACT: The effect of indium impurities on the dependence of the superconducting transition temperature ($T_k(p)$) of thallium on pressure was investigated. It was found that the effect of indium (which has the same valency as thallium) on the $T_k(p)$ dependence of thallium is similar to that of antimony and bismuth (the valence of which is greater than that of thallium). For thallium alloys containing 3.57 and 7.15 at.% of indium, the dependence $T_k(p)$ is linear, the values of dT_k/dp being $1.2 \cdot 10^{-5}$ and $1.6 \cdot 10^{-5}$ deg/atm, respectively. These values are close to that for pure thallium ($dT_k/dp = 1.4 \cdot 10^{-5}$) at pressures from 20,000 to 28,000 atm. The

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L 22254-66

ACC NR: AP6010974 O

experimental data obtained confirm earlier predictions on the sensitivity of the electron spectrum of thallium to impurities and pressure. [CS]

SUB CODE: 20/11/ SUBM DATE: 040ct65/ ORIG REF: 003/ OTH REF: 002

Card 2/2 nst

GRIGOROV, N.D., kand. ekon. nauk; DEMIDOVA, L.A., kand. ekon. nauk; LEGKOSTUP, I.M., kand. ekon. nauk; MAKEYEV, T.M., kand. ekon. nauk; TERESHINA, N.Ya., kand. ekon. nauk; LIZINA, A.I., kand. ist. nauk; BURDAKOVA, A.P.; BELYAYEV, Yu.B., prepodavatel' vysshikh uchebnykh zavedeniy; LYUBIN, V.A., prepodavatel' vysshikh uchebnykh zavedeniy; IVANOV, N.A., lektor; KUZ'MICHEV, V.S., lektor; SUBBOTIN, P.M., lektor; RAPPOPORT, G., red.; GRIN', Ye., tekhn. red.

[Development of the economy and culture of the Altai Territory during 40 years of the Soviet regime] Razvitie ekonomiki i kul'tury Altaiskogo kraia za 40 let sovetskoi vlasti. Barnaul, Altaiskoe knizhnoe izd-vo, 1957. 229 p. (MIRA 11:5)

1. Zaveduyushchiy krayzdravotdelom Altayskogo kraya (for Burdakova). 2. Altayskiy kraykom Kommunisticheskoy partii Sovetskogo Soyuza (for Ivanov, Kur'michev, Subbotin).
(Altai Territory--History)

TERESHINA, Z.L., assistent (Khar'kov)

Retention cysts of the parotid and submaxillary glands. Probl. chel.-lits. khir. no.1:218-222 '65.

(MIRA 18:10)

BEREZOVSKAYA, F.I. [deceased]; SKAPPE, O.K.; TEHESHKEVICH, M.O.; YUDASINA, A.G.

Study of the mobility of hydrogen atoms in salts of dibasic acids.
Ukr.khim.zhur. 24 no.6:741-745 '58. (MIRA 12:3)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Acids, Organic) (Hydrogen)

BEREZOVSKAYA, F.I. [deceased]; SKAPPE, O.K.; TERESHKEVICH, M.O.; YUDASINA, A.G.

Study of the mobility of the hydrogen atom in dibasic carboxylic acids. Ukr.khim.zhur. 25 no.1:45-49 '59. (MIRA 12:4)

1. Dnepropetrovskiy gosuda rstvennyy universitet.
(Acids, Organic) (Hydrogen)

S/076/60/034/007/030/042/XX
B004/B068

26.1610

AUTHORS: Skarre, O. K., Tereshkevich, M. O., and Shelekhova, T. S.

TITLE: Study of the Influence of the Nature of the Cation on the Mobility of Oxygen Atoms in the Anion in Aqueous Solutions. I

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 7, pp. 1599 - 1601

TEXT: The authors proceed from the statement that the influence of the cation on the properties of the anion in concentrated solutions has not yet been thoroughly investigated. The aim of this paper was therefore to study the oxygen exchange between water and the nitrates of Li, Na, K, Rb, Cs, and Ag. The weighed sample consisting of nitrate and water was put into an ampoule and placed into the thermostat. The water-salt ratio was 3:1 related to one gram-atom of oxygen. After a certain time, the ampoules were opened, the water driven off, and the intensity of the exchange reaction calculated from the decrease of the O^{18} content in the water. Analysis was performed by means of flotation. Since no oxygen

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87766

Study of the Influence of the Nature of the Cation on the Mobility of Oxygen Atoms in the Anion in Aqueous Solutions. I

S/076/60/034/007/030/042/XX
B004/B068

exchange took place at 140° and 160°C, small quantities of HNO_3 were added as catalyst. The exchange reaction rate decreased in the following order: $HNO_3 > LiNO_3 > NaNO_3 > KNO_3 > CsNO_3$. $AgNO_3$ showed the same activity as $LiNO_3$. It is supposed that the exchange takes place through complexes forming from solvent, cation, and anion, with the proton of the acid acting as catalyst. The complexes must be rather stable, since no exchange takes place with $CsNO_3$. G. P. Miklukhin and A. I. Brodskiy are mentioned. There are 1 table and 7 references: 5 Soviet, 1 US, and 1 British.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: October 22, 1958

Card 2/2

GITIS, S.S.; TERESHKEVICH, M.O.; GARUS, L.I.; GLAZ, A.I.; SKARRE, O.K.

Reactions of aromatic nitro compounds. Part 11: Study of reesterification using the isotope method. Zhur.ob.khim. 31 no.9:2902-2904 S '61. (MIRA 14:9)
(Esterification) (Nitro compounds)

SKARRE, O.K.; TERESHKEVICH, M.O.

Effect of the nature of cation on the mobility of oxygen atoms in anions in aqueous solutions. Zhur. fiz. khim. 35 no.2:416-419 F '61. (MIRA 16:7)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Nitrates) (Cations) (Oxygen)

SKARRE, O.K.; TERESHKEVICH, M.O.; YUDASINA, A.G.

Mobility of hydrogen atoms in monocarboxylic acids. Zhur. fiz. khim. 35 no.3:558-562 Mr '61. (MIRA 14:3)

1. Dnepropetrovskiy universitet.
(Acids, Fatty) (Hydrogen)

SKARRE, O.K.; TERESHKEVICH, M.S.; KURATOVA, T.S.; LARCHENKO, L.N.

Effect of the nature of cation on the mobility of oxygen atoms in anion in aqueous solutions. Part 3. Zhur. fiz. khim. 37 no.4:879-881 Ap '63. (MIRA 17:7)

1. Dnepropetrovskiy gosudarstvennyy universitet.

SKARRE, O.K.; TERESHKEVICH, M.O.; KURATOVA, T.S.

Effect of the nature of cation on the mobility of oxygen atoms in an anion in aqueous solutions. Part 4. Zhur. fiz. khim. 37 no.5:1132-1134 My '63. (MIRA 17:1)

1. Dnepropetrovskiy gosudarstvennyy universitet.

KIRATOVA, T.S.; [illegible]

Lability of oxygen atoms of bromates in mixed solvent..
Zhur. fiz. khim. 38 no.6:1535-1538 Je '64.
(MIRA 18:6)

1. Dnepropetrovskiy gosudarstvennyy universitet.

KURATOVA, T.S.; TERESHKEVICH, M.O.; GOL'TEUZEN, E.E.; POZHIDAYEVA, E.Yu.; SKARRE, O.K.

Oxygen atomic mobility in certain anions and mixed solvents. Sodium and potassium bromates. Zhur.fiz.khim. 39 no.10:2365-2369 O '65. (MIRA 18:12)

1. Dnepropetrovskiy gosudarstvennyy universitet. Submitted April 14, 1964.

LYSEN OV, N.G., kand.tekhn.nauk; OLEFIR, F.F., kand.tekhn.nauk;
KOVALEV, N.G.; TERESHKIN, A.A.; KIVVA, A.N.

Noncontact system of optimum pulsed control of an electric drive. Avtom. i prib. no. 1:11-15 Ja-Mr '64. (MIRA 17:5)

TERESHKIN, A.F.; UTKIN, N.M.; SHINKEVICH, N.I., kand.tekhn.nauk, dotsent; GOLUBTSOVA, P., red.; TRUKHANOVA, A., tekhn.red.

[Handbook of mechanical drawing for engineers and builders] Spravochnik po inzhenerno-stroitel'nomu chercheniiu. Pod red. N.I.Shinkevicha. Minsk, Gos. izd-vo BSSR. Red. nauchno-tekhn.lit-ry, 1958. 323 p.
(Mechanical drawing) (MIRA 11:4)

SHINKEVICH, Nikolay Iosifovich; BUYNOV, Lenar Nikiforovich; TERESHKIN, Aleksey Fedorovich; PETROVICH, Marlen Nikolayevich; AKALOVICH, N.M., red.; ROMANCHUK, G.M., tekhn. red.

[Textbook on mechanical drawing; for students registering in institutions of higher learning] Posobie po cherecheniiu; dlia postupaiushchikh v vysshie uchebnye zavedeniia. Minsk, Izd-vo "Vysshaia shkola," 1963. 132 p. (MIRA 17:1)

TERESHKIN, D.A. [Ter'oshkin, D.O.]

Hydrogeological conditions governing winning and processing coal deposits in the western Donets Basin. Geol. zhur. 24 no.5:49-59 '64. (MIRA 17:12)

1. Pavlogradskaya kompleksnaya geologorazvedochnaya ekspeditsiya.

AKOL'ZIN, L.Ye.; BOROZDOV, I.A.; BEDILO, V.Ye.; TERESHKIN, F.N. Prinimali uchastiye: BELYAYEV, F.R.; BEREZHNOY, N.V.; BUBYR', V.A.; VANSHAVSKIY, I.N.; DUDKO, V.P.; YERSHOV, V.S.; DUGIN, Ye.V.; DUKALOV, M.F.; IVANOV, P.S.; KONAREVA, V.F.; MONIN, M.I.; MOGILKO, A.P.; PANCHENKO, A.I.; POKALYUKOV, S.N.; PRIKHOD'KO, N.D.; RUBIN, I.A.; SIDORENKO, P.A.; TYUTYUNIK, Ya.I.; KHMEL'NITSKIY, L.Ya.; BONDAR', V.I.; KRIVTSOV, A.T.; LOKSHIN, V.D.; SOFIYENKO, N.P. RABINKOVA, L.K., red.izd-va; BOLDYREVA, Z.A., tekhn.red.

[Types of mine cross section] Tipovye secheniia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.4. [Cross section of mines supported by a sectional reinforced-concrete lining of URP-11 panels for 1-, 2- and 3-ton railroad cars] Secheniia vyrabotok, zakreplennykh sbornoi zhelezobetonnoi krep'iu iz plit URP-II, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 278 p.
(MIRA 13:12)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.
(Mine timbering)

89576

S/076/61/035/002/013/015
B107/B220

11.5100

AUTHORS: Andreyev, K. K., Glazkova, A. P., and Tereshkin, I. A. (Moscow)

TITLE: The influence of pressure on the burning of liquid explosives

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 2, 1961, 426-430

TEXT: The study concerns the combustion of nitroglycol in a glass tube of 3-4 mm diameter at pressures of up to 150 atm. The rate of combustion increases slowly up to about 20 atm pressure in proportional to the pressure: $u_M = 0.048\ p$; then it rises much quicker: $u_M = -7.5 + 0.518\ p$ (u_M in g/cm^2 sec; p in kg/cm^2) (Fig. 1). This higher rate is due to turbulent intermittent burning. The aim of the present investigation was to study the zone of transition to intermittent burning. The fact that the higher rate of combustion depends on the turbulence of the combustion front and not only on the increased amount of heat was proved by tests with gelatinous nitroglycol: Throughout the pressure range investigated, a mixture of 97% nitroglycol and 3% Kolloxoline showed a uniform and slow increase of the combus-

Card 1/4

The influence of pressure ...

tion rate with pressure: $u_M = 0.075 + 0.0315$ (Fig. 2). The combustion products of nitroglycol are NO, CO, CO_2 (approximate ratio 7:1), slight amounts of methane, and possibly formaldehyde. Above a certain pressure - about 10 atm - a secondary flame appears due to the final combustion of NO. The distance between the secondary and primary flames is 18 mm for pure nitroglycol, p = 12 atm, and an internal tube diameter of 5 mm - 18 mm. This distance decreases rapidly with increasing pressure: $l = l_o p^{-1.65}$ (Fig. 6).

For gelatinous nitroglycol, the distance is shorter. For pure nitroglycol, however, this distance begins to vary already at 16-20 atm pressure. Photographs taken with a high-speed camera and a photorecorder have shown that these variations may be regular or irregular. Finally, it is stated that the behavior of the secondary flame does not follow the theory of Ya. B. Zel'dovich and is, thus not decisive for the burning of the liquid. The tendency of the products of combustion to create a secondary flame is attributed not only to thermal but also to more complicated phenomena. According to studies made by I. I. Polyakov, a secondary flame will appear even at lower pressures when tubes of larger diameters are used. The au-

thors thank S. V. Chuyko for making available some illustrations of his diploma thesis. A paper of A. F. Belyayev and L. D. Komkova is mentioned. There are 13 figures and 1 Soviet-bloc reference.

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki (Academy of Sciences USSR, Institute of Chemical Physics)

SUBMITTED: June 25, 1959

Legend to Fig. 1: (x) p in kg/cm^2; (y) u_M in cm. Pressure dependence of the rate of combustion of liquid nitroglycol.
Legend to Fig. 2: (x) p in kg/cm^2; (y) u_M in cm; (1) liquid nitroglycol; (2) gelatinous nitroglycol.
Legend to Fig. 6: (x) p in kg/cm^2; (y) l in mm; variation of the distance between primary and secondary flames as dependent on pressure: (1) liquid nitroglycol; (2) gelatinous nitroglycol. The zone of intermittent burning is indicated by a broken line.

89576

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B107/B220

The influence of pressure ...

FIG.1

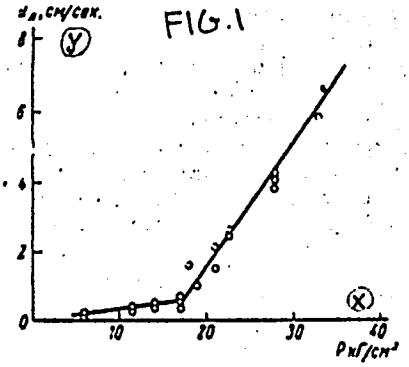


FIG 2

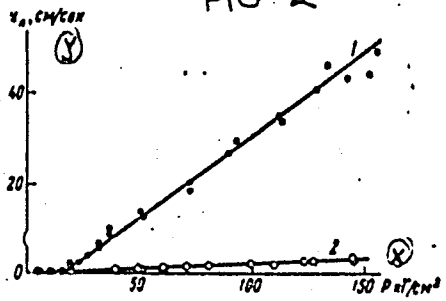
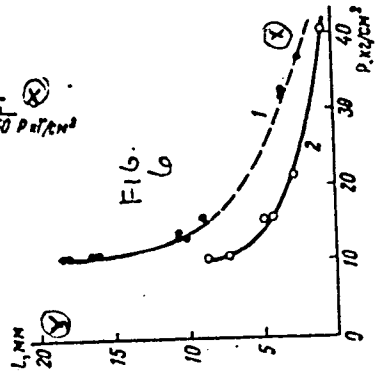


FIG. 9



Card 4/4

26345
S/076/61/035/007/016/019
B132/B220

11.6300

AUTHORS: Glazkova, A. P., and Tereshkin, I. A.

TITLE: Pressure dependence of the combustion rate of explosives

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 7, 1961, 1622-1628

TEXT: The pressure dependence of the combustion rate was studied in a wide pressure range. Trotyl, picric acid, tetryl, Hexogen, Ten, and some mixtures such as Amatol 80:20, nitro-glycerin powder, and black powder, and mixtures of ammonium perchlorate with several fuels were tested. Combustion was studied in bombs at constant pressures of 350 and 1000 atm. These bombs were designed by the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR). The explosive was pressed into columns of organic glass of 7 mm diameter. Ignition was effected by means of a nichrome coil in nitrogen atmosphere. The combustion process was photographed on the moving film of a photographic recorder. The combustion rate was calculated from the equation $u_m=(Ln\sigma\tan\alpha/k)$, where u_m is the mass velocity during combustion, L the circumference of the

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recording drum, n the speed of the drum, α the inclination of the combustion front to the horizontal, δ the specific density of the specimen, and k the reduction of the specimen on the film. Accuracy was ±5%. With trotyl and picric acid, the combustion rate increased linearly with pressure from minimum up to 1000 atm. With tetryl, $u_m=0.04+0.0114p$ holds in the range of 250-1000 atm, whereas $u_m=0.663p^{0.695}$ holds below 250 atm. The combustion rate of Hexogen is much lower, and shows considerable variation above 200 atm. The combustion rate of Ten increases linearly in the range of 16-750 atm. In the case of Dyna, the combustion rate above 1000 atm increases faster than linearly with pressure. The combustion rate of nitro-glycerin (28%) powder increases with pressure according to the relation $u_m=0.12+0.158p^{0.95}$ up to 50 atm. From 50-1000 atm, $u_m=0.62+0.00926p$. For Amatol 80:20, the increase was a little slower than linear in the range of 150-300 atm. $u_m=-0.58+0.00554p$ holds as from 40 atm. Gunpowder no. 1 was used in tests with black powder. The equation $u_m=Bp^{\nu}$ was derived for pressures between 10 and 1000 atm. The

Pressure dependence of the combustion ...

values of coefficients A, B, and ν are tabulated for all substances tested; moreover, the combustion rates at 100 atm, and the combustion temperatures calculated. Professor K. K. Andreyev is thanked for his interest and assistance. A. P. Bakeyev is mentioned. There are 14 figures, 1 table, and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Akademiya nauk SSSR, Institut khimicheskoy fiziki AN SSSR (Academy of Sciences USSR, Institute of Chemical Physics AS USSR)

SUBMITTED: December 25, 1959

Table. Values of coefficients A, B, and ν for a number of explosives. Legend: (A) Explosive; (B) pressure range for which the equation holds, atm; (C) combustion rate at 100 atm; (D) combustion temperature T, °K; (E) trotyl; (F) picric acid; (G) tetryl; (H) Hexogen; (J) Ten; (K) Dyna; (L) nitro-glycerin 28% powder; (M) black powder; (N) Amatol 80:20.

Card 3/4

BUTKEVICH, Roman Veniaminovich, kand.tekhn.nauk; SIDOROV, Ivan Nikolayevich, kand.tekhn.nauk; YACHMENEV, Viktor Ivanovich, inzh.. Prinimali uchastiye: SERGEYEV, F.N., kand.tekhn.nauk; BUTKEVICH, G.R., inzh.; TERESHKIN, S.V., inzh. GAPANOVICH, L.N., otv.red.; ZHUKOV, V.V., red.izd-va; SHKLYAR, S.Ya., tekhn.red.; GALANOVA, V.V., tekhn.red.

[Use of the underground method for the mining of Ural coal deposits] Razrabotka ugol'nykh mestorozhdenii Urala podzemnym sposobom. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 323 p. (MIRA 14:1)

(Ural Mountains--Coal mines and mining)

TERESHKIN, V.V.

Improving the operation of electric drainage protection. Gaz. prom. no. 7:43 Jl '58. (MIRA 11:7)

(Gas--Pipelines)
(Electrolytic corrosion)

TERESHKIN, V.V., inzh.

Device for checking control conductors. Biul. tekh. inform. 5 no.3:26 Mr '59. (MIRA 12:7)
(Electric currents, Leakage)

S/194/62/000/002/020/096
D230/D301

6.7000

AUTHOR: Tereshkin, V.

TITLE: A device for checking controlled conductors

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-2-56m (Zhil.-kommun. kh-vo, 1961// no. 4, 32-33)

TEXT: For the prevention of electrical corrosion in steel gas pipes controlled conductors are used. These give an indication of the presence of anodic areas and the magnitude of the positive potentials between the pipes and earth. The device for checking the soundness of conductors consists of a simple millivoltmeter; this instrument also permits resistance measurements to be made up to 500,000 ohms. Prior to their being installed, the controlled conductors are checked for the attenuation factor; after their installation, the contact between the uninsulated part of the conductor and the ground is checked. When contact is made the needle swings to maximum, indicating the potential due to the circulating currents. The circuit

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A device for checking ...

S/194/62/000/002/020/096
D230/D301

diagram of the device and the principles of its operation are given. 2 figures. [Abstracter's note: Complete translation.]

B

Card 2/2

MALYY, Grigoriy Azar'yevich; TERESHKIN, V.V., nauchn. red.; DESHALYT, M.G., ved. red.

[Operation of the control measuring instruments of gasified units] Ekspluatatsiia kontrol'no-izmeritel'nykh priborov gazifitsirovannykh ustanovok. Leningrad, Gostoptekhizdat, 1963. 162 p. (MIRA 17:12)

L 02200-67 EWT(m)/EWP(j)/T IJP(c) RM
ACC NR: AP6030449 (A) SOURCE CODE: UR/0193/66/000/008/0019/0020

AUTHOR: Sibiryakova, N. A.; Tereshkina, N. V.

15
B

ORG: none

TITLE: Applications of macromolecular polyethylene[15]

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 8, 1966, 19-20

TOPIC TAGS: polyethylene, textile industry machinery, extrusion, high molecular polyethylene, picker

ABSTRACT: The Leningrad Scientific Research Institute of Polymers developed a macromolecular polyethylene, with the same linear structure as ordinary low-pressure polyethylene, but with a molecular weight of more than 1,000,000. Due to its good extrusion properties and machinability, polyethylene can be used for manufacturing machine parts[13] by direct extrusion.[15] The use of polyethylene resulted in a considerable saving in the cost of manufacturing textile[13] machine building parts such as pickers. The life of polyethylene pickers was found to be 4—5 times that of leather ones.

SUB CODE: 07, 11, 14, 13/ SUBM DATE: none/

Card 1/1 UDC: 678.742:621

POLUKHIN, P.I., doktor tekhn. nauk, prof.; ZHELEZNOV, Yu.D., kand. tekhn. nauk; ANTSIFEROV, V.G., inzh.; REIZOV, N.S., inzh.; SAKHARIN, N.N., inzh.; NIKOLAYEV, V.A., inzh.; TERESHKO, A.K., inzh.; POLUKHIN, V.P., kand. tekhn. nauk

Investigating the strength of the connecting rod of slabbing-mill shears. Vest. mashinostr. 43 no.10:13-17 O '63. (MIRA 16:11)

POLUKHIN, V.P.; ZINOV'YEV, A.V.; TERESHKO, A.K.

Elastic deformation of a disk under the effect of various systems of loading. Izv.vys.ucheb.zav.; chern. met. 8 no.4:102-106 '65. (MIRA 18:4)

1. Moskovskiy institut stali i splavov.

ICHKHIN, V.P., kand. tekhn. nauk, [illegible]

Simultaneous measurement of contact stresses and deformations during rolling. Izv. vys. uchteb. zav.; mashinostr. no.6: 144-149 '65. (MIRA 18:8)

POLUKHIN, V.P.; ZINOV'YEV, A.V.; TERESHKO, A.K.; LOSEV, K.F.

Elastic compression of the working rolls on four-high mills. Izv. vys. ucheb. zav.; chern. met. 8 no.7:120-123 '65. (MIRA 18:7)

1. Moskovskiy institut stali i splavov.

107-57-3-57/64

AUTHOR: Tereshko, B. (Chirchik)

TITLE: Repair of Diffusers. Experience exchange (Remont diffuzorov. Obmen opytom)

PERIODICAL: Radio, 1957, Nr 3, p 53 (USSR)

ABSTRACT: A damaged diffuser is usually repaired by pasting a patch of paper with "emalit" or nail-polish lacquer. The repaired place becomes rigid and changes the frequency response of the loudspeaker. For such repairs, it is better to use adhesive tape which can be obtained at any pharmacy.

Card 1/1

1. LINITSKIY, N.V. TERESHKO, D.L. FEDYNSKIY, V.V.

2. USSR (600)

4. Prospecting - Geophysical Methods - Azerbaijan

7. Results of the survey carried out by means of Ising and Boliden gravimeters in the Kirovabad-Naftalan-Agdam petroleum-bearing provinces of the Azerbaijan S.S.R. (Activities of 1942-1944). (Abstract.) Izv.Glav.upr.geol.fon. No. 3 - 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

TERESHKO, D.L.

Calculation of a potential field at different levels on the basis of its distribution on the earth's surface as given in the form of isoline maps. Trudy AzNII DN no.4:199-211 '56. (MIRA 14:4)
(Potential, Theory of)

ACCESSION NR: AR4008228 S/0169/63/000/011/D023/D023

SOURCE: RZh. Geofizika, Abs. 11D134

AUTHOR: Tereshko, D. L.; Gadzhiyev, R. M.; Gasanov, I. S.

TITLE: Marine gravimetric operations

CITED SOURCE: Sb. Geofiz. izuch. geol. stroyeniya neftegazonosn. obl. Azerbaydzhana, Baku, Azerb. gos. izd-vo, 1963, 58-64

TOPIC TAGS: gravimetry, marine gravimetry, marine gravimetry history, pendulum survey, Apsheron peninsula gravimetry, geophysical instrument, marine gravimetric survey

TRANSLATION: The authors describe the history of marine gravimetry, starting with the pendulum survey of 1930 of the route from Baku to the Kura River delta. Prior to 1954, this work was basically of an experimental character. Its aim was to test and master Soviet equipment and to develop techniques of marine surveying using this apparatus; at the same time, the goal was to have the aquatorial around the Apsheron Peninsula covered by an area survey with an average density of 1 point

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ACCESSION NR: AR4008228

per 10-12 km^2. A small bottom gravimeter began to be used in 1956. An anchorless observational technique has been in use since 1958. By the end of 1959, gravimetric surveys covered the entire aquatorial of the Baku Archipelago down to a depth of 100-200 m to the east and up to the national boundary on the south for an area of about 9 thousand km^2. The grid density is 1 point per 8-10 km^2 on the average; the mean square error per measurement is from $\pm$ 0.3 to $\pm$ 0.7 mgal. The latest surveys were used to construct a map of Bouguer anomalies with isolines over 2 mgal, constructed in conformance to the map of the adjacent land. Bottom gravimetry operations continued in 1960 in the southern part of the Apsheron Peninsula, between Makarov Bank and Neftyany*ye Kamni. In the future, the intention is to survey the entire Apsheron shelf, as well as to continue the survey to the south of the Apsheron Peninsula all the way to the Dagestan border. I. Yesakov.

DATE ACQ: 09Dec63 SUB CODE: AS ENCL: 00

Card 2/2

ALI-ZADE, A.A.; AKHMEDOV, G.A.; KULIKOV, V.I.; TERESHKO, D.L.; SHAPIROVSKIY, N.I.

Selecting the site for an extradeep hole for studying the crustal structure of Azerbaijan. Sov.geol. 6 no.2:3-16 F '63. (MIRA 16:4)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti.
(Azerbaijan—Boring) (Azerbaijan—Earth—Surface)

ALI-ZADE, A.A.; RADZHABOV, M.M.; TERESHKO, D.L.

New geophysical data on the structure of crystalline basement in the region of the Araks and Kura junction. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.3:12-16 '65. (MIRA 18:9)

L 14858-66 EWA(h)/EWT(1) GW

ACC NR: AR5012917 SOURCE CODE: UR/0169/65/000/003/G003/G003

AUTHOR: Tereshko, D.L.; Nasruyev, N.R.

ORG: none

TITLE: Designing of a relief diagram for the surface of the bazalt stratum in Azerbaydzhan, according to gravimetric data

SOURCE: Ref. zh. Geofizika, Abs. 3G15

REF SOURCE: Tr. Azerb. n.-i. in-t po dobyche nefti, vyp. 11, 1964, 69-73

TOPIC TAGS: geology gravimetry, gravimetric analysis, gravimetric survey

TRANSLATION: In order to estimate the depth of the surface of the "bazalt" stratum in Azerbaydzhan, the Renbou method was used. The essence of this method is that on the basis of gravimetric observations along the profile, it is possible to calculate, with the help of appropriate transformations, a certain function U, which expresses the deviation of the gravitationally active anomaly-forming boundary S from a certain median horizontal level P, lying at depth N. This method is applicable to the secondary derivative of the power potential of weight W_{xz}. The result of the calculation does not give the function sought for, but gives its derivative U', which is the tangent of the angle of the boundary S incline in the plane of the profile. On the basis

UDC: 550.311

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L 14858-66

ACC NR: AR5012917

C

of several calculated values of U', the relief of surface S is designed. The H value is defined in accordance with data provided by seismic probes. The Renbou method, as compared to other methods, is simpler and less laborious. It give good results when applied to anomalies created by two dimension bodies with inclined angles of not over 50° and with one gravimetrically active contact. In its application of fault structures, the Renbou method does not give the precise character of the surface calculated. The designing of a relief diagram for the "bazalt" stratum in Azerbaydzhan is done on the basis of ten profiles, traversing the basic structural elements of East Transcaucasia. For purposes of calculating, graphics were designed of the weight powers anomalies, from which W_{xz} values were taken; The surplus density was accepted as being about +0.2 g/sm^3. As a result of the calculations, one surface of the division of the earth's crust was obtained. The discrepancy between the depth evaluation obtained and that provided by GSZ (depth seismic probing) data did not exceed 5 km at a maximum depth of ~30 km. The diagram shows the geostructural elements of primary and secondary order, according to the geotectonic zoning charts of Azerbaydzhan.

SUB CODE: 08

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